CLAIMS

1. A fusion protein, comprising a high-affinity Fc-binding domain, and a high-affinity CD3-binding domain.
2. The fusion protein of claim 1, wherein said high-affinity Fc-binding domain is selected from the group consisting of an ectodomain of CD64, a high-affinity CD16 variant, and an antibody fragment with high-affinity for human Fc.
3. The fusion protein of claim 1, wherein said high-affinity CD3-binding domain is an scFv of an anti-CD3 monoclonal antibody.
4. The fusion protein of claim 3, wherein:
   (i) the said anti-CD3 monoclonal antibody is Muromonab-CD3; or
   (ii) the said anti-CD3 monoclonal antibody is dhOKT3.
5. The fusion protein of claim 1, wherein the amino acid sequence of the said fusion protein is SEQ ID NO: 3.
6. A pharmaceutical composition comprising:
   (i) the fusion protein of any one of claims 1-5, and a pharmaceutically acceptable excipient, or
   (ii) DNA and/or RNA constructs that encode the fusion protein of any one of claims 1-5, and a pharmaceutically acceptable excipient.
7. A kit comprising one or more containers filled with gene constructs encoding the fusion protein of any one of claims 1-5, with pharmaceutically acceptable excipients.
8. Use of the pharmaceutical composition of claim 6 in the manufacture of a medicament for the therapeutic treatment of a condition in a subject, wherein the medicament is to be administered in a therapeutically effective amount , and wherein said condition is selected from the group consisting of a cancer, an inflammatory disease, an autoimmune disease, transplant rejection and an infection.
9. The use of claim 8, further comprising a therapeutic antibody to be administered against at least one cell-surface antigen indicative of said condition.
10. The use of claim 9, wherein said cell-surface antigen is selected from the group consisting of CD19, CD20, CD33, EpCAM, HER2/neu, PD-L1, PD-1 and CTLA-4.
11. The use of claim 9, wherein said antibody comprises an Fc region substantially similar to human IgG4.

12. The use of claim 9, wherein said antibody is selected from the group consisting of Rituximab, Trastuzumab and Nivolumab.
13. Use of the pharmaceutical composition of claim 6 in the manufacture of a medicament for the prophylactic treatment of a condition in a subject, wherein the medicament is to be administered in a prophylactically effective amount, and wherein said condition is a cancer.
14. The use of claim 13, further comprising a vaccine to be administered against said condition.